CLAIMS

1. A device for examination, sampling or extraction of the contents of a silo (1) located under a slab (2) pierced by an opening (3), by an organ (7) suspended from a support cable (8) and lowered through the opening (3), characterised in that it comprises at least three guide cables (11) located under the slab (2), converging towards a guide means (13) to which they are hooked by crossing the slab (2) by drill holes (12) arranged in a crown and rolled on winches (10) driven by motors, a common control system (14) for the winches (10, 9), and in that the guide means is provided with sliding surfaces (65) for the support cable between the hooking points (60) of the guide cables (11).

2. A device according to Claim 1, characterised in that the motors (15) of the winches (10) are provided with force limiters (19).

3. A device according to Claim 1, characterised in that the motors of the winches are provided with force measurement sensors (21) linked to the control system (14).

4. A device according to Claim 1, characterised in that the support cable (8) is rolled onto a winch (9) driven by a motor (48) directed by the control system (14).

5. A device according to Claim 1, characterised in that the drill holes (12) are provided with a sleeve (26) provided with a washer (27) with an opening (29) for the passage of a respective guide cable (11).

6. A device according to Claim 5, characterised in that the washer (27) carries rollers (33, 34) defining a guide groove of a respective guide cable (11).

7. A device according to Claim 6, characterised in that the groove is curved and comprises a vertical extremity towards the washer (27) and an oblique extremity directed towards the guide means (13).

8. A device according to Claim 7, characterised in that the sleeves (26) are mounted on the slab so as to pivot, and are driven by motors (36) directed by the control system.

9. A device according to Claim 5, characterised in that the sleeves comprise a second washer (28) with an opening for the passage of a guide cable, the openings (29, 30) of the washers being crossed slits.

10. A device according to Claim 1, characterised in that the winches (9, 10) comprise drums (17, 43) with a surface cut out with a helicoidal groove (52) for reception of the cables (8, 11) in a single rolled layer.

11. A device according to Claim 10, characterised in that the winches comprise crossbars (31, 53) for pressing on the guide cables, set against the drums.

12. A device according to Claim 1, characterised in that the guide cables are four and the drill holes (12) are arranged in a rectangle.

13. A device according to Claim 1, characterised in that the guide cables are hooked to a guide means by engagement of an loop (62) in a ring (60).

14. A device according to Claim 1, characterised in that the sliding surfaces (65) of the guide means (13) are provided with rollers (63) and are convex in the vertical direction.

15. A device according to Claim 1, characterised in that the sliding surfaces (65) of the guide means are concave when linking the hooking points (60) of the guide cables.

16. A device according to Claim 1, characterised in that the opening of the slab is provided with a crown (68) of rollers (70).

17. A device according to Claim 16, characterised in that the crown of rollers is polygonal and mounted on the opening (3) of the slab (2) in such a way as to turn freely.

18. A device according to Claim 17, characterised in that the crown of rollers is evasive downwards and mounted on the opening of the slab with upward and downward supports (69).